

## CLAIMS:

1. A proxy agent for communicating data components between a first system which supports a first protocol  
5 and a second system which supports a second protocol, said first and second protocols being mutually incompatible, the proxy agent comprising a directory for storing said data components wherein each data component stored in said directory is associated with a  
10 first data component identifier which is compatible with said first protocol, and with a second data component identifier which is compatible with said second protocol.
- 15 2. A proxy agent as claimed in Claim 1, further including a first protocol handler arranged to communicate with said first system using said first protocol, and a second protocol handler arranged to communicate with said second system using said second  
20 protocol, wherein said first protocol handler is arranged to send data components to, and/or receive data components from, said directory using said first data component identifier, and said second protocol handler is arranged to send data components to, and/or  
25 receive data components from, said directory using said second data component identifier.
3. A proxy agent as claimed in Claim 1, in which the directory supports a hierarchical data structure in  
30 which each stored data component is associated with a respective position in the hierarchical data structure.

4. A proxy agent as claimed in Claim 3, wherein said  
respective first data component identifiers support a  
hierarchical structure and serve to identify the  
respective position of the respective data component in  
5 the hierarchical data structure.

5. A proxy agent as claimed in Claim 4, wherein said  
data components are arranged into directory entities  
within the directory, each directory entity comprising  
10 a one or more directory entries, each directory entry  
comprising a respective data component, a respective  
first data component identifier and a respective second  
data component identifier.

15 6. A proxy agent as claimed in Claim 5, wherein each  
data component within a directory entity belongs to the  
same branch of the hierarchical data structure.

20 7. A proxy agent as claimed in Claim 5, wherein each  
directory entity is associated with a first directory  
entity identifier which is compatible with said first  
protocol and with a second identifier which is  
compatible with said second protocol.

25 8. A proxy agent as claimed in Claim 7, in which said  
respective first directory entity identifiers support a  
hierarchical structure.

30 9. A proxy agent as claimed in Claim 7, in which each  
of said first directory entity identifiers belongs to a  
branch of the hierarchical data structure that is one  
hierarchical level above the branch to which the

respective data components in the respective directory entity belong.

5 10. A proxy agent as claimed in Claim 5, in which a respective schema is provided to define each type of directory entity and wherein a respective directory entry is created by populating a respective schema with one or more data components.

10 11. A proxy agent as claimed in Claim 1, wherein said first protocol supports a hierarchical data structure.

15 12. A proxy agent as claimed in Claim 1, wherein said first and second protocol each comprise a respective network management protocol.

20 13. A proxy agent as claimed in Claim 1, wherein said first protocol comprises Simple Network Management Protocol (SNMP).

25 14. A proxy agent as claimed in Claim 1, wherein said first system comprises a Network Management system (NMS) and said second system comprises a network element.

30 15. A proxy agent as claimed in Claim 14, wherein said proxy agent effects communication between said Network Management system and a plurality of network elements, at least some of said network elements supporting said second protocol.

16. A proxy agent as claimed in Claim 1, wherein said directory comprises a directory which supports Lightweight Directory Access Protocol (LDAP).

5 17. A network comprising a first system which supports a first protocol and a second system which supports a second protocol, said first and second protocols being mutually incompatible, and a proxy agent as claimed in Claim 1.

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18. A method of communicating data components between said first system which supports a first protocol and a second system which supports a second protocol, said first and second protocols being mutually incompatible,  
15 said method comprising storing said data components in a directory wherein each data component stored in said directory is associated with a first data component identifier which is compatible with said first protocol, and with a second data component identifier  
20 which is compatible with said second protocol.

19. A computer program product comprising computer program code for causing a computer to perform the method of claim 18.

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